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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/596,244

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Natarajan Vaidhyanathan

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09/20/2004

IBM CORPORATION

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EXAMINER

TRAN, PHUC H

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/596,244

Applicant(s)

VAIDHYANATHAN ET AL.

Examiner

PHUC H TRAN

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-6 is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: "ARP" needs to spell out. "the port" in line 12 is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shand (U.S. Patent No. 6147976).

- With respect to claim 1, Shand a new packet filtering system which is interpreted as a method for automatically generating a network subnet configuration,

establishing and maintaining in memory a table of learned IP subnets (col. 8, lines 1-25), each of which includes a characterizing learned subnet address (col. 8, line 11), a mask for identifying the IP address bits common to all members of the learned subnet and the forwarding domain of the subnet (col. 5, lines 1-10);

intercepting IP ARP frames, extracting the from and to IP addresses from an intercepted IP ARP frame (block 122, 124 in Fig. 7);

examining the table of learned subnets to determine if the extracted IP addresses belong to one or more of the learned subnets (block 132, 134 in Fig. 7);

if neither IP address belongs to a learned subnet, defining a new learned IP subnet address for inclusion in the table stored in the memory from the common elements in the prefix of the IP addresses (col. 8, lines 16-24), including a port over which the ARP frame was received in the forwarding domain of the learned subnet and generating a mask which identifies all of the common elements in the prefixes of both IP addresses (col. 10, lines 21-67).

Shand fails to teach IP ARP frames, however it would have been obvious to a person of ordinary skill in the art at the time of the invention was made Shand explicitly teach IP ARP frames in the invention. Therefore, Shand invention can be implement with ARP frames.

- With respect to claim 7, Shand also teaches wherein the table further includes ports associated with each of the learned subnets (col. 9, lines 21-33) and a second mask associated with each of the learned subnets to identify hosts belonging to each of the learned subnets (col. 7, lines 36-50).

Allowable Subject Matter

4. Claims 2-6 are allowed.

Response to Arguments

5. Applicant's arguments, with respect to the rejection(s) of claim(s) 1 under Kloth have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Shand.

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phúc Tran
Assistant Examiner
Art Unit 2664

P.t
9/7/04


DANG TON
PRIMARY EXAMINER